



APPLICATIONS UNDER EXAMINATION

APPLE

APPLE (*Malus pumila*)

Proposed denomination: 'SPA766'
Application number: 17-9066
Application date: 2017/01/13
Applicant: Agriculture & Agri-Food Canada, Summerland, British Columbia
Agent in Canada: Summerland Varieties Corp. (SVC), Summerland, British Columbia
Breeder: David W. Lane, Agriculture & Agri-Food Canada, Summerland, British Columbia

Varieties used for comparison: 'Gala' and 'Chinook'

Summary: *The extent of anthocyanin colouration on the petiole of 'SPA766' is small to medium whereas that on 'Chinook' is large. The arrangement of the petals for 'SPA766' are overlapping whereas the petals for 'Gala' are free and the petals of 'Chinook' are intermediate. The extent of the anthocyanin over colour on the young fruit of 'SPA766' is absent or very small whereas for 'Chinook' it is medium to large. The fruit shape of 'SPA766' is conic whereas that of 'Chinook' is globose. The eye of the fruit of 'SPA766' is small to medium sized whereas that for 'Chinook' is large. The relative area of over colour on the fruit of 'SPA766' is large to very large whereas for 'Gala' it is medium to large and for 'Chinook' it is medium sized. The over colour on the fruit of 'SPA766' is a solid flush with weakly defined stripes whereas that of 'Gala' is a weakly defined flush with strongly defined stripes and that of 'Chinook' is flushed and mottled. The area of russet around the stalk attachment for 'SPA766' is absent or small whereas for 'Chinook' it is large. The fruit of 'SPA766' has many lenticels whereas the fruit of 'Gala' has few lenticels and the fruit of 'Chinook' has a medium number of lenticels. In transverse cross section, the apertures of the locules of the fruit of 'SPA766' are fully open whereas those of 'Chinook' are closed or slightly open.*

Description:

TREE: weak to medium vigour, ramified, spreading growth habit, fruit bearing on spurs and long shoots, begins flowering early to mid season, early to mid season fruit harvest and eating maturity

ONE-YEAR-OLD SHOOT: medium to thick, dark brown on side facing sun, sparse pubescence on distal half, medium to many lenticels

PETIOLE: small to medium extent of anthocyanin colouration from base

LEAF BLADE: upwards attitude in relation to shoot, large length to width ratio, dark green on upper side, serrate incisions of margin on distal half, absent or sparse pubescence on lower side

FLOWER: predominantly dark pink at balloon stage, overlapping arrangement of petals, stigmas positioned above anthers

YOUNG FRUIT: absent or very small extent of anthocyanin over colour

FRUIT: medium to large, medium to large height to diameter ratio, conic shape, absent or weak degree of ribbing, moderate crowning at calyx end, medium sepal length

FRUIT SKIN: absent or weak degree of bloom, absent or weak degree of greasiness, whitish yellow ground colour, large to very large relative area of over colour, medium to strong intensity of red over colour, over colour distributed as solid flush with weakly defined stripes, narrow to medium width stripes, absent or small area of russet around stalk attachment, absent or small area of russet on cheeks, small area of russet around eye basin, many lenticels, medium to large lenticels

FRUIT STALK: medium to thick

FRUIT STALK CAVITY: medium depth, medium to broad

FRUIT EYE: small to medium size

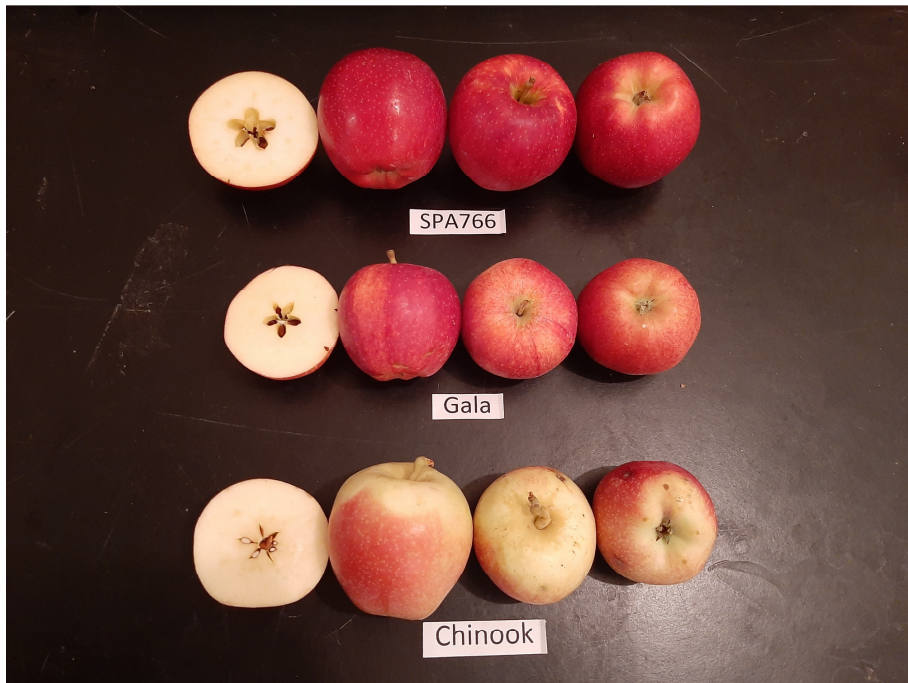
FRUIT EYE BASIN: medium depth, medium width

FRUIT FLESH: soft to medium firmness, yellowish colour, fully open aperture of locules in transverse section

Origin and Breeding: 'SPA766' originated from cross conducted by Dr. David Lane on behalf of Agriculture and Agri-Food Canada, in 1992 at the Summerland Research and Development Center, in Summerland, British Columbia. The cross

was made between the varieties '11W-16-016' and 'Chinook'. The first selection was made in 1999 and further propagations were made in 2000 onto M9 rootstock. 'SPA766' was selected based on harvest date, fruit colour and eating characteristics.

Tests and Trials: The comparative trial for 'SPA766' was conducted from 2020 to 2021 at Summerland Varieties Corp. test plots, in Summerland, British Columbia. The trial consisted of 10 trees each of 'SPA766' and 'Gala' planted in 2012 on M9 rootstock and 10 trees of 'Chinook' planted in 2010 on MM111 rootstock. Trees were planted approximately 0.61 metres apart within a row and the rows were 3 metres apart. Observations and measurements were taken on 10 trees or 10 parts of trees for all varieties.



Apple: 'SPA766' (top) with reference varieties 'Gala' (centre) and 'Chinook' (bottom)